CLAIMS

1. A vehicle system for low-speed collision avoidance, the system comprising:

a vehicle operation control module;

at least one first signal generator for indicating a distance of at least one object from the vehicle, in communication with said control module;

a second signal generator for indicating a vehicle velocity, in communication with said control module;

a third signal generator for indicating an accelerator position, in communication with said control module;

a fourth signal generator for indicating a brake switch position, in communication with said control module;

a fifth signal generator for indicting a shift position, in communication with said control module; and

a sixth signal generator for indicating a distance zone selected by an operator for an operational distance for said system;

wherein said vehicle operation control module effects vehicle operation based on information from said signal generators when said vehicle is traveling below a predetermined low velocity and when said vehicle is stopped.

2. The vehicle system of claim 1 wherein said distance zone further comprises said operational distance in the range from about 0.1 meters to about 3 meters.

3. The vehicle system of claim 1 wherein said distance zone selected further comprises key on to key on memory.

4. The vehicle system of claim 1 wherein said system further comprises an anti-lock brake/traction control system operably connected to said control module to effect vehicle operation when said vehicle is traveling below said predetermined low velocity.

5. The vehicle system of claim 1 wherein said system further comprises a powertrain control system operably connected to said control module for throttle intervention.

6. The vehicle system of claim 5 wherein said system further comprises a braking control system operably connected to said anti-lock brake/traction control system.

7.   The vehicle system of claim 1 further comprising a system override switch operably connected to said control module.

8.   The vehicle system of claim 1 further comprising a seventh signal generator for detecting the coefficient of friction of the surface on which said vehicle is traveling, operably connected to said control module.

9.   The vehicle system of claim 1 wherein said predetermined low velocity is below about 5 mph.

10.   The vehicle system of claim 1 wherein said control module further stores and runs at least one algorithm for determining a mode of vehicle operation.

11.   The vehicle system of claim 1 further comprising a warning indicator operably connected to said control module.

12.   A method for avoiding a low-speed collision in a vehicle, said method comprising the steps of:

    providing an operation control module linked to a plurality of signal indicators in said vehicle;

    determining a distance of at least one object from said vehicle and providing a signal indicative thereof to said operation control module;

    determining a vehicle velocity and providing a signal indicative thereof to said operation control module;

    determining an accelerator position and providing a signal indicative thereof to said operation control module;

    determining a brake switch position and providing a signal indicative thereof to said operation control module;

    determining a shift position and providing a signal indicative thereof to said operation control module;

    determining a zone of operation selected by an operator for operation of said system operation; and

    generating a vehicle control signal in said control module to effect vehicle operation when said vehicle is traveling below a predetermined low velocity and when the vehicle is stopped, based on said signals.

13.   The method of claim 12 further comprising the step of selecting a zone of operation for the system in the range of about 0.1 meters to about 3 meters.

14.   The method of claim 12 further comprising the step of controlling vehicle operation using braking intervention.

15.   The method of claim 12 further comprising the step of controlling vehicle operation using throttle intervention.

16.   The method of claim 12 further comprising the step of determining a coefficient of friction of a surface on which the vehicle is traveling.

17.   The method of claim 12 further comprising the step of effecting vehicle operation running an algorithm.

18.   A vehicle system for low-speed collision avoidance, said vehicle system comprising:

an operation control module linked to a plurality of signal indicators in said vehicle;

means for determining a distance of at least one object from said vehicle and providing a signal indicative thereof to said operation control module;

means for determining a vehicle velocity and providing a signal indicative thereof to said operation control module;

means for determining an accelerator position and providing a signal indicative thereof to said operation control module;

means for determining a brake switch position and providing a signal indicative thereof to said operation control module;

means for determining a shift position and providing a signal indicative thereof to said operation control module;

means for selecting a zone of operation of said system; and

means for generating a vehicle control signal in said control module to effect vehicle operation when said vehicle is traveling below a predetermined low velocity and when the vehicle is stopped, based on said signals provided.